Amendments to the Claims

This listing of claim will replace all prior version, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of simultaneously detecting ~~and distinguishing~~ a plurality of different functional antibodies comprising[[,]]:

(a) combining a sample ~~containing~~ with a first plurality of different antigens, complement and effector cells, wherein the antigens are differentially labeled by a plurality of different fluorescent molecules,

(b) incubating the sample to allow for internalization of the antigens by the effector cells, and

(c) detecting internalized antigens ~~using a flow cytometer~~, wherein an increase in fluorescence as compared to a control sample indicates the presence of internalized antigens and the functional antibody.

2. (currently amended) The method of Claim 1, wherein each member of the ~~first~~ plurality of different fluorescent molecules differs from each other member of the plurality in its fluorescence emission wavelength.

3. (currently amended) The method of Claim 1, wherein each member of the ~~first~~ plurality of different fluorescent molecules differs from each other member of the plurality in its fluorescence intensity.

4. (currently amended) The method of Claim 1, wherein each member of the first plurality of different antigens comprises a bacterial molecule ~~derived~~ from a different serotype of a single bacterial species.

5. (original) The method of Claim 4, wherein the bacterial species is *Streptococcus pneumoniae*.

6. (original) The method of Claim 4, wherein the bacterial species is *Neisseria meningitidis*.

7. (original) The method of Claim 4, wherein the bacterial molecule is an intact bacterium.

8. (original) The method of Claim 7, wherein the intact bacterium is not viable.

9. (original) The method of Claim 1, wherein the sample is taken from a body fluid or tissue of an individual.

10. (currently amended) The method of Claim 9, wherein the individual has been immunized with ~~a vaccine containing~~ a second plurality of different antigens, wherein the second plurality of different antigens are not labeled with fluorescent molecules but are otherwise the same as the first plurality of antigens.

11. (currently amended) The method of Claim 10, wherein the detection of the functional antibody indicates the efficacy of the ~~vaccine~~ immunization.

12. (currently amended) The method of Claim 1, wherein the complement ~~is~~ comprises freeze dried baby rabbit serum.

13. (currently amended) A method of simultaneously detecting ~~and distinguishing~~ a plurality of different functional antibodies comprising[[,]]:

(a) combining a sample ~~containing~~ with a first plurality of different antigens ~~attached to different fluorescently labeled beads~~, complement and effector cells, wherein the first plurality of different antigens are attached to different fluorescently labeled beads,

(b) incubating the sample to allow for internalization of the fluorescently labeled beads by the effector cells, and

(c) detecting the internalized beads ~~using a flow cytometer~~, wherein an increase in fluorescence as compared to a control sample indicates the presence of internalized beads and functional antibody.

14. (original) The method of Claim 13, wherein each member of the plurality of different antigens attached to different fluorescently labeled beads differs from each other member of the plurality in its fluorescence emission wavelength.

15. (original) The method of Claim 13, wherein each member of the plurality of different antigens attached to different fluorescently labeled beads differs from each other member of the plurality in its fluorescence intensity.

16. (currently amended) The method of Claim 13, wherein each member of the first plurality of different antigens comprises a bacterial molecule ~~derived~~ from a different serotype of a single bacterial species.

17. (original) The method of Claim 16, wherein the bacterial species is *Streptococcus pneumoniae.*

18. (original) The method of Claim 16, wherein the bacterial species is *Neisseria meningitidis.*

19. (original) The method of Claim 13, wherein the sample is taken from a body fluid or tissue of an individual.

20. (currently amended) The method of Claim 19, wherein the individual has been immunized with ~~a vaccine containing~~ a second plurality of different antigens, wherein the second plurality of different antigens are not labeled with fluorescent molecules but are otherwise the same as the first plurality of antigens.

21. (currently amended) The method of Claim 20, wherein the detection of the functional antibody indicates the efficacy of the ~~vaccine~~ immunization.

22. (currently amended) A method of simultaneously detecting ~~and distinguishing~~ a plurality of different functional antibodies comprising[[,]]:

(a) combining a sample ~~containing~~ with a first plurality of different antigens, complement and effector cells, wherein the antigens are differentially labeled by a plurality of different fluorescent molecules,

(b) incubating the sample to allow for internalization of the antigens by the effector cells, and

(c) detecting internalized antigens using a ~~standard~~ hematology unit, wherein ~~an~~ a change in volume, conductivity, or scatter as compared to a control sample indicates the presence of internalized antigens and the functional antibody.

23. (currently amended) A method of simultaneously detecting ~~and distinguishing~~ a plurality of different functional antibodies comprising[[,]]:

(a) combining a sample ~~containing~~ with a first plurality of different antigens ~~attached to different fluorescently labeled beads~~, complement and effector cells, wherein the first plurality of different antigens are attached to different fluorescently labeled beads,

(b) incubating the sample to allow for internalization of the fluorescently labeled beads by the effector cells, and

(c) detecting the internalized beads using a particle concentration immunofluorescent analyzer, wherein an increase in fluorescence as compared to a control sample indicates the presence of internalized beads and functional antibody.

24. (new) The method of claim 1, the internalized antigens are detected with a flow cytometer.

25. (new) The method of claim 13, the internalized antigens are detected with a flow cytometer.

26. (new) The method of claim 1, wherein the effector cells are macrophages, mononuclear phagocytes, natural killer cells, or granulocytes.

27. (new) The method of claim 1, wherein the effector cells are obtained from the serum of an individual or from an in vitro culture.

28. (new) The method of claim 1, wherein the effector cells are human promyelocytic leukemia cells.

29. (new) A method of simultaneously detecting a plurality of different functional antibodies comprising:

(a) combining a sample with a first plurality of different antigens, freeze-dried baby rabbit serum, and human promyelocytic leukemia cells, wherein the antigens are differentially labeled by a plurality of different fluorescent molecules;

(b) incubating the sample to allow for internalization of the antigens by the cells; and

(c) detecting internalized antigens using a flow cytometer, wherein an increase in fluorescence as compared to a control sample indicates the presence of internalized antigens and the functional antibody.